

CLAIMS

What is claimed is:

1. A method for providing information for selecting a content server to a network node associated with a client, the method comprising:

5 receiving a request for a response, wherein the request corresponds to a message transmitted by a network node associated with a client for selecting a content server;

10 providing a response datagram, the response datagram associated with the received request, wherein the network is configured to allow transmission of the response datagram onto the network without dividing the response datagram into smaller fragments;

15 providing multiple response fragments, wherein the multiple response fragments are obtained by dividing the response datagram into multiple fragments; and

20 transmitting the multiple response fragments to the network node associated with the client for selecting a content server wherein reception of the multiple response fragments by the network node provides information for selecting a content server.

2. The method of claim 1, wherein the multiple response fragments are transmitted between predetermined intervals.

3. The method of claim 1, wherein the multiple response fragments are transmitted between random intervals.

4. The method of claim 1, wherein the network node responsible for selecting a content server is a local domain name server.

5. The method of claim 1, wherein the network node responsible for selecting a content server is a server selection system.

6. The method of claim 1, wherein the request is a Boomerang Control Protocol message.

5 7. The method of claim 6, wherein the response is a DNS reply.

8. The method of claim 1, wherein the multiple response fragments comprise fragments of a DNS reply.

9. The method of claim 1, wherein the multiple response fragments are padded with data.

10 10. The method of claim 9, wherein the data is randomly generated.

11. A method for providing information associated with a network for selecting a content server, the method comprising:

receiving a request from the server selection system for a response message;

15 providing a response datagram, the response datagram corresponding to the response message;

identifying a maximum transfer unit, wherein the maximum transfer unit is the upper bound on the amount of data that can be transferred as a single datagram;

dividing the response datagram into multiple fragments, wherein two or more fragments each have a size smaller than the maximum transfer unit;

20 transmitting the multiple response fragments to the network node associated with the client for selecting a content server, wherein receipt of the multiple response fragments provides information to the server selection system.

12. The method of claim 11, wherein the request is a Boomerang Control Protocol message.

25 13. The method of claim 12, wherein the response is a DNS Reply.

14. The method of claim 11, wherein the multiple response fragments comprise fragments of a DNS reply.

15. The method of claim 11, wherein the multiple response fragments are associated with network layer length fields and transport layer length fields.

16. The method of claim 15, wherein the network layer length fields are increased while the transport layer length fields are unmodified.

17. The method of claim 11, wherein the multiple response fragments are padded with data.

18. The method of claim 17, wherein the data is randomly generated.

19. A method for providing information to a network node associated with a client, the information provided for selecting a content server from a plurality of content servers, the method comprising:

receiving a request for a response from a server selection system responsible for selecting a content server;

providing a response datagram, the response datagram associated with the received request.

providing multiple response fragments, wherein three or more response fragments have different lengths; and

transmitting the multiple response fragments to the network node associated with the client for selecting a content server wherein reception of the multiple response fragments by the network node provides information for selecting a content server.

20. A computer program product comprising a machine readable medium on which is provided program instructions for providing network information to a network node associated with a client, the computer program product comprising:

computer code for receiving a request for a response, wherein the request corresponds to a message transmitted by the network node associated with a client for selecting a content server;

5 computer code for providing a response datagram, the response datagram associated with the received request, wherein the network is configured to allow transmission of the response datagram onto the network without dividing the response datagram into smaller fragments;

10 computer code for providing multiple response fragments, wherein the multiple response fragments are obtained by dividing the response datagram into multiple fragments; and

15 computer code for transmitting the multiple response fragments to the network node associated with the client for selecting a content server wherein reception of the multiple response fragments by the network node provides information for selecting a content server.

21. The computer program product of claim 20, wherein the request is a Boomerang Control Protocol message.

22. The computer program product of claim 21, wherein the response is a DNS reply.

20 23. The computer program product of claim 22, wherein reception of all of the fragments by the network node provides drop rate information to the network node associated with the client.

24. The computer program product of claim 20, wherein the multiple response fragments correspond to network layer length fields and transport layer length fields.

25. The computer program product of claim 24, wherein the network layer length fields are increased while the transport layer length fields are unmodified.

26. The computer program product of claim 20, wherein the multiple response fragments are padded with data.

27. The computer program product of claim 26, wherein the data is randomly generated.

28. An apparatus for providing network information for selecting a content server to a network node associated with a client, the apparatus comprising:

memory;

an input interface for receiving a request for a response, wherein the request corresponds to a message transmitted by the network node associated with a client for selecting a content server;

one or more processors coupled with the memory, the processors configured to provide a response datagram, the response datagram corresponding to the received request, wherein the network is configured to allow transmission of the response datagram onto the network without dividing the response datagram into smaller fragments and wherein the processors are further configured to provide multiple response fragments, wherein the multiple response fragments are obtained by dividing the response datagram into multiple fragments; and

an output interface for transmitting the multiple response fragments to the network node associated with the client wherein reception of the multiple response fragments by the network node provides information for selecting a content server.

29. The apparatus of claim 28, wherein the multiple response fragments are transmitted between predetermined intervals.

30. The apparatus of claim 28, wherein the multiple response fragments are transmitted between random intervals.

31. The apparatus of claim 28, wherein the network node associated with the client is a local domain name server.

5 32. The apparatus of claim 28, wherein the network node associated with the client is a server selection system.

33. The apparatus of claim 28, wherein the request is a Boomerang Control Protocol message.

34. The apparatus of claim 33, wherein the response is a DNS Reply.

10 35. The apparatus of claim 28, wherein the multiple response fragments can be reassembled to form a DNS Reply.

36. The apparatus of claim 28, wherein the multiple response fragments correspond to network layer length fields and transport layer length fields.

15 37. The apparatus of claim 36, wherein the network layer length fields are increased while the transport layer length fields are unmodified.

38. The apparatus of claim 28, wherein the multiple response fragments are padded with data.

39. The apparatus of claim 38, wherein the data is randomly generated.

20 40. A apparatus for providing information for selecting a content server to a network node associated with a client, the apparatus comprising:

means for receiving a request for a response, wherein the request corresponds to a message transmitted by a network node associated with a client for selecting a content server;

25 means for providing a response datagram, the response datagram associated with the received request, wherein the network is configured to allow transmission of

the response datagram onto the network without dividing the response datagram into smaller fragments;

means for providing multiple response fragments, wherein the multiple response fragments are obtained by dividing the response datagram into multiple fragments; and

means for transmitting the multiple response fragments to the network node associated with the client for selecting a content server wherein reception of the multiple response fragments by the network node provides information for selecting a content server.

41. The apparatus of claim 40, wherein the multiple response fragments correspond to network layer length fields and transport layer length fields.

42. The apparatus of claim 41, wherein the network layer length fields are increased while the transport layer length fields are unmodified.

43. The apparatus of claim 40, wherein the multiple response fragments are padded with data.

44. The apparatus of claim 43, wherein the data is randomly generated.